4. (twice amended) A biocide concentrate composition for use in hard water, and in the presence of organic material, consisting of:

a.) a surfactant [agent] for complexing or stabilizing iodine;

b.) a biocidal amount of iodine complexed by the surfactant [agent], or by hydriodic acid, and the surfactant;

c.) propionic acid, and propionates, their salts and esters, [for pH control, and for combining] with ambient NH_3 or ammonium compounds arising from fermenting litter and manure to form ammonium propionate, thereby producing residual biocidal activity, and inhibiting microorganism formation [, including preventing mold formation]; [and]

d.) acidifiers to adjust the composition pH to within the acid range [.] and, optionally propylene glycol, a buffer and water.

6. (once amended) The composition of claim 4, [including] wherein propylene glycol [and the like] is present for inhibiting dust formation.

7. (twice amended) A biocide concentrate composition, consisting of:

a.) a surfactant [agent], for complexing or stabilizing iodine and hydriodic acid;

b.) at least about 0.1% of a biocidal amount of iodine complexed by the surfactant [: at least about 0.1%]; and, at least about 0.01% of hydriodic acid [: at least about 0.01%] for reducing surface tension;

c.) at least about 10% of propionic acid, [and equivalents] propionates, their salts and esters [for combining] with ambient ammonia or ammonia containing compounds arising from fermenting litter and manure to form ammonium propionate [: at least about 10%]; [and,]

~~a.)~~ an acidifier[s] to adjust the composition pH to within the acid range;

and, optionally propylene glycol, a buffer and water.

8. (once amended) The composition of Claim 7, [including] wherein propylene glycol [and the like] is present for solubilizing components of the composition to inhibit dust formation and, providing product stability and increasing penetrability into microorganisms and surfaces.

9. (once amended) The composition of claim 4, in which the surfactant [comprises] is a polyoxyethylene polyoxypropylene block copolymer.

10. (once amended) The composition of claim 4, in which the surfactant is selected from the [class] group consisting of non-ionic, laureth (11 - 16) carboxylic acid; PVP; nonyl phenoxypolyethoxy ethanol; polyethenoxy; and, polyethoxylated polyoxypropylene block copolymer.

11. (once amended) The composition of claim 4, which consists of: at least about 0.1% iodine [: at least about 0.1%]; at least about 0.01% hydriodic acid [: at least about 0.01%]; at least 10% propionic acid, [and the like] propionates, their salts and esters;
an acid to obtain a pH of about -2 to 3; at least about 1% of a buffer [; at least about 1%] and at least about 5% of propylene glycol, [: at least about 5%] all parts by weight.

12. (once amended) The composition of Claim 10, which comprises: about 0.1% - 5% iodine [: about 0.1% - 5%]; about 0.01% - 2% hydriodic acid [: about 0.1% - 5%]; about 10% - 75% propionic acid, [and the like: about 10% - 75%], propionates, their salts and esters; an acid sufficient to obtain a ph of about - 2 to 3; at least 1% of a buffer, and, about 5% - 30% of propylene glycol, [and the like,] all parts by weight.

13. (once amended) The composition of claim 11, in which the [acidifying agent] acidifier and buffer is an acid selected from the [class] group consisting of citric acid, lactic acid, sorbic acid, maleic acid, fumaric acid [and the like] and their salts and esters, and mixtures thereof.

14. (once amended) The composition of claim 13, [comprising a water diluent] wherein water is present as a diluent.

15. (once amended) The composition of claim 13, [comprising a water diluent of about 20% - 40% by weight of the composition] wherein about 20% - 40% of water is present as a diluent in the composition.

18. (once amended) The composition of claim [16] 4, in which the composition has a shelf life of up to about one year to eighteen months, at ambient temperatures.

21. (twice amended) A method for reducing or eliminating biocides from surfaces of animal husbandry, animal feed and food processing operation in the presence of hard water, consisting of: applying to the surface a solution containing a surfactant [agent] a biocidal amount of hydriodic acid and complexed or stabilized iodine, propionic acid [and equivalent acids] propionates, their salts and esters for pH control, and [for combining] ambient NH_3 or ammonia containing compounds arising from fermenting litter and manure to form ammonium propionate, thereby producing residual biocidal activity, and inhibiting [or preventing] microorganism [including mold formation] infestations; and, acidifiers to adjust the composition pH to within the acid range.

23. (once amended) The method of claim 21, including propylene glycol [and the like} for inhibiting dust formation.

24. (once amended) The method of claim 21, [including] wherein the solution further comprises propylene glycol [and equivalent glycols] for dissolving components of the composition, and for inhibiting dust formation.

26. (once amended) The method of claim 21, in which the surfactant is selected from the [class] group consisting of polyethenoxy; non-ionic, laureth (11 - 16) carboxylic acid; PVP; nonyl phenoxypolyethoxy ethanol; and, polyethoxylated polyoxypropylene block copolymer.

28. **(once amended)** The method of claim 21, in which the solution [comprises] consists of: at least about 0.1% iodine [: about at least 0.1%]; at least about 0.01% hydriodic acid [: at least about 0.01%]; at least about 10% propionic acid, [and the like: at least about 10%] propionates, their salts and esters; [phosphoric acid and/or sulfuric acid, and the like] an acidifier sufficient to obtain a pH of about -2 to 3; [an acidifying agent and] about 0% - 10% buffer [: about 0% - 10%]; and, about 0% - 10% propylene glycol [about 0% - 10%, and equivalents thereof], all parts by weight, for combining with ambient NH_3 to form ammonium propionate.

29. **(once amended)** The method of claim 28, in which the solution [comprises] consists of: up to about 5% iodine [: up to about 5%]; up to about 0.01% - 2% hydriodic acid; [: up to about 0.01% - 2%] about 10% - 75% propionic acid, [and the like: about 10% - 75%] propionates, their salts and esters, [phosphoric acid and/or sulfuric acid, and the like] an acidifier sufficient to obtain a pH of about -2 to 3; about 0% - 10% buffer [about 0% - 10%]; and, about 5% - 30% propylene glycol, [and the like: about 5% - 30%], all parts by weight, for combining with ambient NH_3 to form ammonium propionate.

30. **(once amended)** The method of claim 28, in which the [acidifying agent] acidifier and buffer is an acid selected from the [class] group consisting of citric acid, lactic acid, maleic acid, fumaric acid, sorbic acid [and the like], their salts and mixtures thereof.

31. **(once amended)** The method of claim [29] 21, in which the [composition includes] solution further comprises water as a diluent.

34. **(once amended)** The method of claim [20] 21 in which the [composition] solution has a shelf life of at least one year at ambient temperatures.

35. **(once amended)** The method of claim 21, in which activity of the [composition] solution is maintained in the presence of up to about 50% of organic matter.

41. **(twice amended)** The method of claim 28, [for use as a bovine teat dip] wherein the solution is applied as a bovine teat dip.

42. **(new)** The composition of claim 4, for use as a bovine teat dip.